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Independent System Operator

2026 Cluster Study Enhancements For Consideration

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Transmission Planning Advisory Subcommittee (TPAS)/Electric System Planning Working Group (ESPWG)
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Agenda

- **Background/Objectives**
- **Potential Process Improvements to Pursue**
- **Stakeholder Comments**
- **Timeline/Next Steps**

Updates from the 12/3/2025 TPAS/ESPWG presentation and discussion points for today's meeting are noted in red.

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Background/Objectives

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Background

- **The Transition Cluster Study has posed numerous challenges, including:**
  - Numerous iterations of deficiency reviews due to inconsistent and/or inaccurate Interconnection Request submissions;
  - Deficiencies leading to withdrawals that often trigger delays due to excessive cure periods, dispute resolution and the potential for reinstatement of withdrawn projects requiring restudy/model updates;
  - The large volume of projects in the Transition Cluster poses significant challenges in validating the number of Interconnection Requests and performing required evaluations in the various study phases; and
  - Mitigating the collective reliability impact of over 70 GW of new generation (more than double NYISO's Summer peak load) requires numerous significant upgrades.
- **Next Cluster Study has shorter timelines which could further exacerbate inefficiencies and problems**

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Background, cont.

- **Commercial Operation Date (COD) Extensions**
  - NYISO and TOs are seeing a high number of requests for COD extensions (primarily from projects from Class Years 2019-2023).
  - Because these projects are in the Cluster Study base cases, continued delays pose significant challenges, for example:
    - Potential to limit available POIs for Cluster Study projects
    - Potential to decrease available capacity/headroom for Cluster Study projects
  - The generous COD extension requirements included in the Order No. 2023 compliance filing intended to address unique technology-driven factors and Covid-related issues (e.g., supply chain challenges) may warrant reconsideration.

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Primary Objectives for Process Enhancements

- **Increase efficiencies to make the Application Window and early stages of the next Cluster Study Process more manageable and less susceptible to delays;**
- **Improve quality of Interconnection Request submissions which in turn will:**
  - Decrease deficiencies necessitating withdrawals and subsequent cures or disputes; and
  - Decrease iterations of deficiency responses and reviews in what will be a more abbreviated timeframe under the next Cluster Study.

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Potential Process Improvements for Consideration

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Interconnection Request (IR) Efficiencies

Potential Improvement	Benefits/Impact
Increased Training for Interconnection Customers	• Fewer deficiencies and related withdrawals and disputes
Simplify IR Form	• Fewer deficiencies and related withdrawals and disputes
Abbreviated IR Forms for Contingent Projects	• Less information for Interconnection Customers to provide • Fewer IRs to review and validate • Fewer deficiencies and related withdrawals and disputes

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IR Efficiencies, cont.

Potential Improvement	Benefits/Impact
Use IR Data vs. Separate Modeling Data to Produce Models	• Reduce modeling data Interconnection Customers must submit • Reduce inconsistencies and errors, fewer deficiencies and related withdrawals and disputes
Limit Scope of TO Data Requests	• Reduce deficiencies and related withdrawals and disputes
Clarify Deficiency Cure Process	• Reduce withdrawals and disputes
Clarify Site Control Rules for Uprates	• Reduce deficiencies, withdrawals and disputes

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Phase 1 and Phase 2 Study Efficiencies

Potential Improvement	Benefits/Impact
Conditional Phase 1 Entry for Physically Infeasible Projects	• For POI with limited interconnection capability, allow lower priority projects to proceed where priority projects elect early in the process not to proceed
Address Impact of Affected TOs identified during the Phase 1 Study	• Reduce potential delays in Phase 1 Studies
Limit scope of potential Non-Local SUF and SDU alternatives to evaluate	• Reduce potential delays in Phase 1 and Phase 2 Studies

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Proposals to Limit Impact of Project Withdrawals

Potential Improvement	Benefits/Impact
Clarify Definition of Physical Infeasibility	• Fewer deficiencies and related withdrawals and disputes
Eliminate Withdrawal Cure Periods for Certain Deficiencies	• Reduce potential for study delays and delays pending review of deficiency cures and resolution of disputes
Align Cure Periods	• Reduce potential for study delays and delays pending review of deficiency cures and resolution of disputes
Clarify how an Interconnection Customer in Dispute Resolution can Conditionally Enter the Next Study Phase	• Clarity for projects subject to a pending dispute resolution proceeding to conditionally proceed in process until resolution is addressed to reduce delaying process for other projects

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Finance-Related Issues

Potential Improvement	Benefits/Impact
Assess Interest on Unpaid Invoices	• Fewer unpaid invoices

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Pre and Post Cluster Study Process Improvements

Potential Improvement	Benefits/Impact
Limit Number of POIs per Pre-Application Request	• Administrative efficiencies
More Stringent Rules for COD Extensions	• Limit excessive COD extensions • Reduce impact on POI “headroom” resulting from modeling speculative projects and their upgrades in base cases • Protect TOs and other Interconnection Customers from exposure to increased uncertainty and costs triggered by projects remaining in the interconnection queue for lengthy periods of time
IA Process Efficiencies • For additional detail, see presentation included with these meeting materials	• More efficient IA negotiations to manage significant increasing volume of IAs • Less time for projects in the IA stage • Address recurring non-conforming revisions to IAs currently extending IA negotiation period and necessitating numerous filings at FERC

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Clarifications

Potential Improvement	Benefits/Impact
Clarify Base Case Lockdown Rules	• Consistency among TOs • Clarity for Interconnection Customers • Accuracy of study assumptions • Less likely to incur delays in the commencement date of Phase I • Avoidance of potential re-work
Clarify Contingent Project Withdrawal Rules	• Reduce disputes
Clarify Final Decision Period Rules	• Clarify the application of the 10% threshold used for revisiting Interconnection Customer determination during the decision period.

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Clean Up/Ministerial Edits

Potential Improvement	Benefits/Impact
Study cost allocation rules for non Cluster Studies included in initial compliance filing but found out of scope	• Consistency in tariff • Clarity for Interconnection Customers
Additional Pro Forma Form and Agreement Placeholders	• Administrative efficiencies
Ministerial/Minor Cleanup Edits	• Tariff readability and clarity

Stakeholder Comments

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Comments from Stakeholders

- **ACE-NY provided comments posted as part of the January 5, 2026 TPAS/ESWPG meeting materials regarding:**
  - Conditional Phase 1 entry for physically infeasible projects;
  - Process improvement to address physical infeasibility;
  - Increased training for Interconnection Customers;
  - Improved coordination between Transmission Owners and Interconnection Customers;
  - Excluding or reducing the percentage of SASUF and CTOAF cost estimates from the Readiness Deposit 2 calculation;
  - Harmonization of Phase 1 cost estimate methodology among Transmission Owners;
  - Consistency between Phase 1 Study reports and cost estimate assumptions; consistency in study report format;
  - Assumptions regarding availability of fiber in cost estimates;
  - Application of NPCC A10 test;
  - Preliminary Phase 2 SUF cost estimates;
  - Pre-Application Window Interconnection Request forms;
  - Interconnection Request data input interface;
  - Communication and documentation regarding mandatory vs. optional data inputs; illustrative example of each required Interconnection Request field;
  - Minimization of redundant data inputs;
  - Early sharing of NYISO's modeling data; and
  - Validation of model packages independent of Cluster Study Application Window.

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Comments from Stakeholders, cont.

- **Granite Source Power provided comments posted as part of the January 5, 2026 TPAS/ESWPG meeting materials regarding:**
  - Suggested improvements to the pre-application process;
  - Interconnection Request information requirements;
  - Standardized site plan requirements across TOs;
  - Clarification and additional information/results meetings as part of the Physical Infeasibility screenings;
  - Clarification regarding deposit refund timelines;
  - Application of study deposit to study costs;
  - Standardized upgrade cost and construction time estimates; and
  - Identification of land acquisition and permitting responsibilities early in the process.

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Comments from Stakeholders, cont.

- **RWE Clean Energy, LLC provided comments posted as part of the January 5, 2026 TPAS/ESWPG meeting materials regarding:**
  - Earlier notification regarding non-Local SUFs;
  - Timing for tendering Interconnectin Agreements;
  - Availability of Interconnection Request forms prior to Application Window opening; and
  - Fast track interconnection process for projects addressing reliability issues.

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Comments from Stakeholders, cont.

- **Invenergy provided comments posted as part of the January 5, 2026 TPAS/ESWPG meeting materials regarding:**
  - The need for NYISO to implement a conditional expedited deliverability study mechanism applicable to requests for the interconnection of a co-located Energy Storage Resource (CESR); and
  - Clarification as to the calculation of headroom payments applicable to planned, but not yet constructed, upgrades when the final cost to construct the upgrades differs from the initial estimate.

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Next Steps

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Tentative Timeline to Implement Enhancements in Next Cluster Study

- January-April 2026
  - Based on Stakeholder feedback, prioritize and finalize universe of proposals that can be developed in time for implementation in the next Cluster Study
  - Continue to vet and refine proposals with Stakeholders
- April/May 2026
  - Stakeholder and Board Approvals
  - FERC filing
- Late May 2026
  - FERC filing
- Late July 2026
  - FERC Order
- August 2026
  - Anticipated start of next Cluster Study

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Questions?

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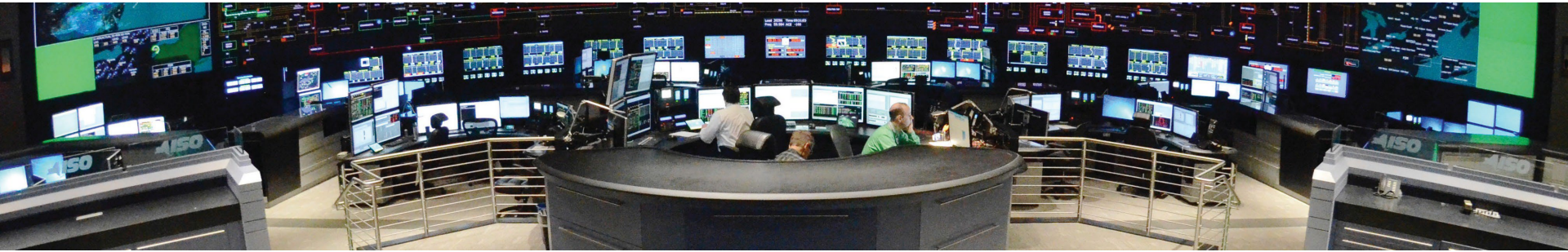
Our Mission and Vision

Mission

Ensure power system reliability and competitive markets for New York in a clean energy future

Vision

Working together with stakeholders to build the cleanest, most reliable electric system in the nation



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